

## Product datasheet for RC226529

### SPHK1 (NM\_001142602) Human Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
 Product Name: SPHK1 (NM\_001142602) Human Tagged ORF Clone  
 Tag: Myc-DDK  
 Symbol: SPHK1  
 Synonyms: SPHK  
 Mammalian Cell Selection: Neomycin  
 Vector: pCMV6-Entry (PS100001)  
 E. coli Selection: Kanamycin (25 ug/mL)  
 ORF Nucleotide Sequence: >RC226529 representing NM\_001142602  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGATCCAGCGGGCGGCCCGGGGGCGTGTCCCGGGCCCTGCCGCGTGTGGTGTCTGAACCCGC  
 GCGGGCGCAAGGGCAAGGCCTTGCAGCTTCCGGAGTCACGTGCAGCCCTTTTGGCTGAGGCTGAAAT  
 CTCCTTACGCTGATGCTCACTGAGCGGCGGAACCACGCGGGGAGCTGGTGGTGGAGGAGCTGGC  
 CGCTGGGACGCTCTGGTGTCTGTGGAGACGGCTGATGCACGAGGTGGTGAACGGGCTCATGGAGC  
 GGCTGACTGGGAGACCCATCCAGAAGCCCTGTGTAGCCTCCAGCAGGCTCTGGCAACGCGCTGGC  
 AGCTTCTTGAACCATTATGCTGGCTATGAGCAGGTACCAATGAAGACCTCCTGACCAACTGCACGCTA  
 TTGCTGTGCCCGCGCTGCTGTACCCATGAACCTGCTGTCTCTGCACACGGCTTCGGGGCTGCGCCTCT  
 TCTGTGTCTCAGCCTGGCCTGGGGCTTATTGCTGATGTGGACCTAGAGAGTGAGAAGTATCGGCGTCT  
 GGGGAGATGCGCTTCACTCTGGGCACCTTCTGCTTCTGGCAGCCCTGCGCACCTACCGCGGCCGACTG  
 GCCTACCTCCCTGTAGGAAGAGTGGGTTCCAAGACACCTGCCTCCCCGTTGTGGTCCAGCAGGGCCCG  
 TAGATGCACACCTTGTGCCACTGGAGGAGCCAGTGCCTCTCACTGGACAGTGGTCCCGACGAGGACTT  
 TGTGCTAGTCTGGCACTGCTGCACTCGCACCTGGCAGTGAGATGTTTGGTGCACCCATGGGCCGCTGT  
 GCAGTGGCGTCATGCATCTGTTCTACGTGCGGGCGGAGTGTCTCGTGCCATGCTGCGCCTTCC  
 TGGCCATGGAGAAGGGCAGGCATATGGAGTATGAATGCCCTACTTGGTATACGTGCCCGTGGTCCGCTT  
 CCGCTTGGAGCCCAAGGATGGGAAAGGTGTGTTTGCAGTGGATGGGAATTGATGGTTAGCGAGGCCGTG  
 CAGGGCCAGGTGCACCCAACTACTTCTGGATGGTGCAGCGTTGCGTGGAGCCCCCGCCAGCTGGAAGC  
 CCCAGCAGATGCCACCGCCAGAAGAGCCCTTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >RC226529 representing NM\_001142602  
Red=Cloning site Green=Tags(s)

MDPAGGPRGVLPRPCRVLVLLNPRGGKQALQLFRSHVQPLLAEEISFTLMLTERRNHARELVRSEELG  
 RWDALVMSGDGLMHEVVNGLMERPDWETAIQKPLCSLPAGSGNALAASLNHYAGYEQVTNEDLLTNCTL  
 LLCRRLLSPMNL LSLHTASGLR LFSVL SLAWGF IADVDLESEKYRRLGEMRFTLGTFLLLAALRTYRGR L  
 AYL PVGRVGSKTPASPVVVQQGPVDAHLVPLEEPVPSHWTVPDEDFVLVLALLHSHLGSEMFAAPMGRC  
 AAGVMHLFYVRAGVSRAMLLRLFLAMEKGRHMEYECPYLVYVPPVAVFRLEPKDGKGVFAVDGELMVSEAV  
 QGQVHPNYFWMVSGCPEPPPSWKQPMPPEEPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001142602

**ORF Size:** 1152 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001142602.1](#), [NP\\_001136074.1](#)

**RefSeq ORF:** 1155 bp

**Locus ID:** 8877

**UniProt ID:** [Q9NYA1](#)

**Cytogenetics:** 17q25.1

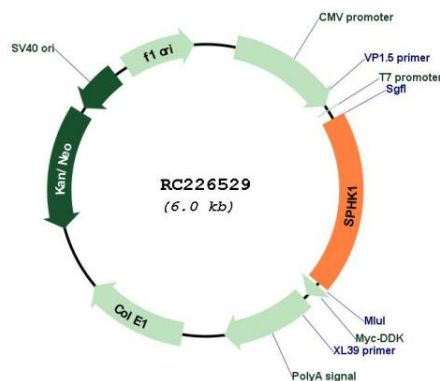
**Protein Families:** Druggable Genome

**Protein Pathways:** Calcium signaling pathway, Fc gamma R-mediated phagocytosis, Metabolic pathways, Sphingolipid metabolism, VEGF signaling pathway

**MW:** 42.3 kDa

**Gene Summary:** The protein encoded by this gene catalyzes the phosphorylation of sphingosine to form sphingosine-1-phosphate (S1P), a lipid mediator with both intra- and extracellular functions. Intracellularly, S1P regulates proliferation and survival, and extracellularly, it is a ligand for cell surface G protein-coupled receptors. This protein, and its product S1P, play a key role in TNF-alpha signaling and the NF-kappa-B activation pathway important in inflammatory, antiapoptotic, and immune processes. Phosphorylation of this protein alters its catalytic activity and promotes its translocation to the plasma membrane. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2017]

### Product images:



Circular map for RC226529